

## *Abstract*

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**Project Title:** Identifying novel Hsp90 Inhibitors by disrupting its cochaperone interaction usin

**Abstract:** *DESCRIPTION* (provided by applicant):

Specific Aims: To identify small molecules that inhibit Hsp90 activity by inhibiting its interaction with the co-chaperone HOP. Inhibition of this interaction will prevent Hsp90-dependent folding, thus lead to the degradation of oncogenic signaling proteins.

Aim 1: Test the MLSCN compound libraries to identify compounds that inhibit the Hsp90-TPR2A interaction, using an AlphaScreen based high throughput screening assay.

Aim 2: Validate compounds identified in the screen described in Aim 1 by testing their efficacy in inhibiting the Hsp90-TPR2A interaction, using independent in vitro and in vivo assays.

Aim 3: Test the effectiveness of the compounds validated in Aim 2 in inhibiting cancer cell growth.

### ***Thesaurus Terms:***

*High throughput screening, Hsp90, co-chaperone HOP, oncogenic signaling protein, MLSCN, TPR2A, AlphaScreen, inhibiting cancer cell growth*

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